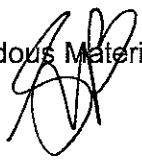


MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

OPERATIONAL MEMO GEN-15
REVISION 1

TO: Waste and Hazardous Materials Division Supervisors

FROM: George W. Bruchmann, Chief, Waste and Hazardous Materials Division 

DATE: February 10, 2006

SUBJECT: Remediation Advisory Team (RAT)

HISTORY, FUNCTION, AND MAKEUP:

The RAT was established in April 1993 to review proposed remedial action plans (RAPs) that had been prepared pursuant to consent orders and judgements. The RAT was considered the best mechanism to promote consistency, to bring together staff from the various Waste and Hazardous Materials Division (WHMD) programs, to ensure that cross-program issues were adequately addressed, and to help WHMD staff become familiar with the cleanup requirements to be used. With the 1995 amendments to Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, the RAT became involved in the review of all proposed limited RAPs prior to final approval by the WHMD Chief.

The RAT currently provides assistance to WHMD staff, at their request, at any point in the review of any remediation proposal. The RAT also develops guidance to aid staff in reviewing remedial investigations (RIs) and RAPs and provides opinions on technical issues related to remediation activities.

The RAT includes nine core members, one alternate member, and up to three project members as follows:

Core members comprise a wide range of expertise in the fields of biology, engineering, geophysics, hydrogeology, sampling strategy, statistics, and toxicology. These members are expected to be knowledgeable of Part 201 legal requirements, including Remediation and Redevelopment Division (RRD) guidance documents, and their applicability to WHMD remediations. The core members are appointed by the WHMD Chief and represent each of the program areas and Lansing and District staff. The chairperson will be rotated every two years. Other Department of Environmental Quality (DEQ) staff may be consulted on an as-needed basis.

The project members are the staff who present an individual project at the RAT meeting and have knowledge of the specific site history and conditions. These staff should also be aware of the specific WHMD program requirements for the project under review. The project members generally are limited to three people per site, including, as necessary, the WHMD's Enforcement Section staff.

The alternate member is available to fill in if one of the core members will be absent. The core member should request the alternate attend as early as possible, but no less than one week prior to a scheduled meeting. The RAT chairperson should be copied on the alternate request.

February 10, 2006

WHEN TO USE THE RAT:

MANDATORY: Any RAP that involves an approval under one of the following Part 201 categories, or that involves one of the listed groundwater issues, must be presented to the RAT prior to final action:

1. Any limited Commercial, Industrial, or Residential category, site specific, or other land use category (e.g., recreational, agricultural)
2. Sites eliminating the groundwater pathway (groundwater not in an aquifer)
3. Generic sites where a mixing zone is an issue

OPTIONAL: A RAP involving only an approval under a Generic Commercial, Generic Industrial, or Generic Residential Part 201 category may, but need not, be presented to the RAT. If not presented to the RAT, a copy of the WHMD Cleanup Criteria Worksheet and the RAP approval letter should be sent to the RAT for tracking purposes.

Due to the complexities of Part 201 and the fact that most staff does not routinely encounter RAPs, it is suggested that staff bring remediation projects, initial consultations, intermediate reviews, proposals involving innovative technologies, and final RAP reviews to the RAT. The RAT may also assist in the review of cleanup verification documentation, groundwater waiver demonstrations, and Part 201 delisting or deleting actions.

Subject to the mandatory review of a final RAP noted above, the individual staff responsible for a RAP review determines the timing and degree of RAT involvement in DEQ consideration of a RAP. The applicable Section Chief or District Supervisor is responsible to see that the RAT is properly employed.

With the exception of changes that involve new or revised proposals for any of the mandatory RAT reviews cited above, there are some amendments to approved RAPs that can be directly approved by project staff without RAT review or oversight. These RAP amendments do not require amending the legally binding agreements (such as deed restrictions, the Limited Land Use Agreement [LLUA], local ordinances, termination of an LLUA, etc.). Examples of amendments that may not require RAT review include such things as changes in monitoring parameters or frequency, abandoning wells no longer needed, updates to a Sampling and Analysis Plan, or other technical/administrative changes that are not part of the legally binding agreements for the RAP. Staff always has the option of requesting RAT review for those items, if desired.

PROCEDURES:

The RAT meets the last Wednesday of every month starting at 9:30 a.m. Three weeks prior to each meeting, the RAT chairperson sends a request for projects to all supervisors. Staff wanting to present a project should contact the RAT chairperson to schedule a meeting date and time. If the standard meeting date is not convenient, alternate meeting dates and times can be scheduled. Once a meeting is scheduled, the presenting staff should prepare a RAT Review Request – Project Summary Checklist form (attached) and the appropriate WHMD Part 201 Cleanup Criteria Worksheet (attached). Two WHMD Cleanup Criteria Worksheets are available, one for RIs and one for RAPs. These forms can also be found on the WHMD public

drive under P:\Activities\Committees\Remediation Advisory Team\Forms as "RATREQST.dot," "WHMDp201RIsheet.doc," and "WHMDp201RAPsheet.doc."

The RAT Review Request form and the appropriate WHMD Cleanup Criteria Worksheet should be provided to the RAT chairperson two weeks prior to the scheduled meeting date. The RAT Review Request form should provide a summary of the RAP. The entire RAP should not be sent for the RAT to review. The project members can provide details additional to those provided in the RAT Review Request form during the RAT meeting and should bring a copy of the RAP should questions arise. If there is a particular portion of the RAP for which staff seeks particular assistance (e.g., risk assessment, modeling) the necessary data for that portion of the review should be forwarded with the RAT Review Request form. One week prior to the meeting, the RAT chairperson will send an agenda via e-mail to all WHMD supervisors and RAT members, with a copy sent to the WHMD's Assistant Division Chief, Field Operations Section Chief, and Enforcement Section Chief.

In limited circumstances, facility representatives may present site information to the RAT. This opportunity is limited to a presentation followed by a question and answer session. The availability of this opportunity and the time allowed for each segment is to be determined by the RAT chairperson in consultation with project members. The purpose of this presentation is to assist the RAT in understanding the site and proposed RAP; it is not an opportunity for facility representatives to debate regulations or to negotiate a final decision. After the presentation, the facility representatives will be excused, and the RAT will formulate its recommendations to staff.

An issue on which the RAT core members and project members do not come to an agreement will be elevated to the WHMD Chief for resolution. Likewise, a staff person submitting an issue to the RAT may elevate the issue to the WHMD Chief if that person does not agree with the RAT recommendation.

Following the RAT meeting, a draft summary of the decision and comments will be given to all present. A comment period on the draft summary will be specified at the meeting. Final comments will be completed and distributed after incorporation, as appropriate, of comments received. The requesting staff can use RAT comments to either support approval of the RAP or to work with the facility in addressing any concerns that were raised.

Once the RAT project (requesting) staff believes the facility has met all the requirements for limited category RAPs, they will draft a RAP approval letter for the WHMD Chief's signature and forward this to the RAT chairperson. The RAT chairperson then forwards the letter to all RAT core members for comments or suggested revisions. The draft RAP approval letter will then be forwarded to the WHMD Chief with the RAT chairperson's recommendation to approve the RAP. If the RAT does not support the RAP approval letter, a written explanation will be provided to the RAT project staff.

DOCUMENTS FOR RAT REVIEW:

The RAT has developed a checklist to be used in determining the necessary elements of a RAP. This checklist will indicate those component documents and supporting information that must be submitted to the RAT for its review. The RAT shall also maintain and make available template versions of component documents contained in a RAP.

RAT RESOURCES:

The following documents are also available to assist in RAP reviews and can be found on the following sites:

- 1 Training Manual for Part 201 Cleanup Criteria, available in each District Office in hard copy and on the Internet at <http://www.michigan.gov/deq> on the RRD Home page
- 2 Former Environmental Response Division Operational Memos, available on the Internet at <http://www.michigan.gov/deq> on the RRD Home page
- 3 Groundwater Not in an Aquifer Guidance Document, available in each District Office and on the Internet at <http://www.michigan.gov/deq> on the WHMD Home page
- 4 Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria, available on the Internet at <http://www.michigan.gov/deq> on the RRD Home page
- 5 Delegation letters, available on the DEQ Intranet at <http://connect.michigan.gov/portal/site/deq/index.jsp>
- 6 Michigan Background Soil Survey 2005, available on the Internet at <http://www.michigan.gov/deq> on the WHMD Home page
- 7 Notice of Approved Environmental Remediation, available on the Internet at http://www.deq.state.mi.us/documents/deq-rrd-ce-naer_MDEQ.doc

The following are found on the WHMD public drive under P:\Activities\Committees\Remediation Advisory Team:

1. Rule 57/GSI updates
2. Example approval letters and public notices
3. WHMD RAP Approval Flowchart
4. Active Groundwater Remediation Waiver Petition

SUMMARY:

The RAT exists to provide a service to WHMD staff. Additional suggestions for how the RAT can best provide this service, including the identification of additional areas of Part 201 applicability to WHMD programs, other guidance needs, or streamlining ideas can be submitted to the RAT chairperson.

Attachments

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

WASTE AND HAZARDOUS MATERIALS DIVISION REMEDATION ADVISORY TEAM

REVIEW REQUEST – PROJECT SUMMARY CHECKLIST

Note: To use this form please make sure of the following:
(1) Form is locked (View/Tools bars/Forms/Click "Lock" Icon to activate drop down menus)
(2) Status bar is turned on (Tools/Options/View Tab/Check Show Status bar box)

PROGRAM: PART 115 **REQUEST DATE:**

DISTRICT/SECTION: Cadillac District

CLEANUP TYPE: GENERIC

RAP TRACKING FORM ATTACHED? ☐

ZONING: Residential

REVIEW REQUEST: Initial Consultation

DATE PREPARED:

1. **Project Name and Location** (provide topographic map, scaled site map):
2. **Project Description** (include all possible sources that may impact the site, sources of contamination, status of cleanup):
3. **Site Hydro Summary** (geologic units, depth to aquifer, GW flow direction, aquifer thickness, vertical and horizontal gradient, aquifer characteristics as needed, and GW discharge point):
4. **Affected Media and Contaminants** (soils, GW, surface water, chemicals exceeding Type B or Generic Residential and their concentrations):
5. **Extent of Contamination** (plume/soil delineation-vertical and horizontal, maps showing extent, profiles):

6. **Potential Pathways of Exposure** (risk analysis, inhalation, drinking water, surface water, direct contact, air emissions, other resources May attach completed WMD Conditions to Evaluate form):
7. **Other Pertinent Information:** (physical restrictions, financial constraints, access constraints, engineering problems):
8. **Facility Proposed Action** (additional site investigation, remediation method, engineering controls, monitoring, deleting, delisting, no active removal, etc.):
9. **Project Staff Recommendations** (approve facility proposal, additional investigations, additional remedial requirements, alternatives, etc.):
10. **Estimated Time for Presentation and Discussion:**

PROJECT STAFF FOR RA TEAM:

Geologist:

Engineer:

Environmental Quality Analyst:

Supervisor:

DATE PROJECT STAFF NEEDS RAT RESPONSE:

WHMD Part 201 RI/RFI WORKSHEET

For each condition or exposure pathway, assess relative to *generic residential* criteria and associated requirements, then record information by filling out appropriate boxes. Provide brief rationale for conclusions. For assistance, contact the WHMD RAT Chairperson.

Facility/Name: _____ Remedial activities pursuant to: ☐ Part 111 ☐ Part 115 ☐ Part 169
 Report Name: _____ Date of Report: _____
 Worksheet Filled Out By: _____ Date: _____

Concentrated Hazardous Substance Sources (See Guideshheet A):

Abandoned substances that are being dispersed or may be dispersed in the future.

	Yes/No	Violation?	Description:
Containerized hazardous substances.	_____	_____	_____
Free phase liquids.	_____	_____	_____
Other sources (soils/gw "hot spots," etc.) present	_____	_____	Type: _____

Risks due to:	Must fill out		Action needed? Provide brief rationale for conclusion	Justification that Pathway Not Relevant (e.g., #1, #2 - approved demonstration of Groundwater not in an aquifer - GWNIAA)?
	Within Generic Residential Criteria/ Screening Level?	YES/NO		
Groundwater Contamination (Guideshheet/Criteria Table Column #)				
Drinking water usage (#1)				
Hazards to surface waters (#3)				
Indoor air hazards (chronic/systemic) (#4)				NA
Dermal exposures such as by utility workers (#6)				NA
Water Solubility (#7) {If No-Source Control Considerations}				NA
Physical hazards (#8) & Acute inhal. tox. (#9)				NA

Risks due to:	Must fill out	Action needed? Provide brief rationale for conclusion.	Justification that Pathway Not Relevant?
	Within Generic Residential Criteria? YES/NO		
Soil Contamination (Guidesheet/Criteria Table Column #)			
Injury to drinking water use of aquifer (#11)			
Causes GW to be hazardous to SW (#12)			
Risk from contact (utility work) with GW (#13)			NA
Indoor air inhalation hazards (#14)			
Ambient air inhalation hazards (#15, #16, #17, #18)			NA
Hazards due to direct contact (ingestion, dermal) (#19)			NA
Soil saturation (#20) {If No - Source Control Considerations - A}			NA

Risks due to: <u>Soil Contamination</u> (continued)	Provide brief description of potential concerns for pathway.	Justification that Pathway Not Relevant?
Polluted soil runoff to surface waters (B)		
Waste Classification Concerns (Part 111 or Part 115)		

Risks due to: <u>Contamination of Surface Water Sediments</u>	Provide brief description of potential concerns for pathway.	Justification that Pathway Not Relevant?
Aquatic flora/fauna/food chain hazards (C)		

<u>Other Risks:</u>	Provide brief description of potential concerns for pathway.	Justification that Issue is Not Relevant?
Acute toxic impacts & physical hazards (D)		
Ecological & aesthetics (E)		
Additivity and synergistic considerations?		
Asbestos containing materials (F)		

WHMD Part 201 RAP/CMi WORKSHEET

For each condition or exposure pathway, assess relative to *generic residential*, other generic criteria and associated requirements and as necessary limited category requirements, then record information by filling out appropriate boxes. Provide brief rationale for conclusions. For assistance, contact the WHMD RAT Chairperson.

Facility/Name: _____ Remedial activities pursuant to: ☐ Part 111 ☐ Part 115 ☐ Part 169

Report/Plan Name: _____ Date of Report/Plan: _____

Worksheet Filled Out By: _____ Date: _____

Concentrated Hazardous Substance Sources (see Guidesheet A):

Abandoned substances that are being dispersed or may be dispersed in the future.

Yes/No Violation? Description:

Containerized hazardous substances. _____

Free phase liquids. _____

Analysis of source controls. _____

Other sources (soils/gw "hot spots," etc.) present _____ Type: _____

Risks due to: <u>Groundwater Contamination</u> (Guidesheet/Criteria Table Column #)	Must fill out Within Generic Residential Criteria? YES/NO	If "Within Generic Residential Criteria" = NO, then must fulfill requirements for one below				Justification that Pathway Not Relevant (e.g.s. #1 & #2 approved demonstration of groundwater not in an aquifer – GWNI/AA; #3 – no surface water bodies within 1 mile)?	
		Within Other Generic Criteria Category?		Limited – Exposure Controls (engineered barriers, restrictive covenant(s) and/or institutional controls plus monitoring plan, Operation & Maintenance plan, permanent markers, Financial Assurance Mechanism, 705(5)/705(6) Waiver			705(5)/ 705(6) Waiver
		Category	Zoning ?	Enforceable Agreement	Zoning ?	Restrictive Covenant(s) or Institutional Controls	
Drinking water use (#1, #2)							
Hazards to surface waters (#3)							
Mixing Zone Required?							
Indoor air hazards (#4, #5)							NA
Dermal exposures such as by utility workers (#6)							NA
Water Solubility (#7)							NA
Physical hazards (#8) & Acute inhal. tox. (#9)							NA

Risks due to: <u>Soil Contamination</u> (Guidesheet/Criteria Table Column #)	Must fill out Within Generic Residential Criteria? YES/NO	If "Within Generic Residential Criteria" = NO, then must fulfill requirements for one below									
		Within Other Generic Criteria Category?			Limited – Exposure Controls (engineered barriers, restrictive covenant(s) and/or institutional controls plus monitoring plan, Operation & Maintenance plan, permanent markers, Financial Assurance Mechanism)						
		Category	Zoning ?	Notice of Approved Environmental Remediation?	Category	Enforceable Agreement	Zoning ?	Restrictive Covenant(s) or Institutional Controls	Leach Testing ?	Justification that Pathway Not Relevant?	
Injury to drinking water use of aquifer (#11, #21)											
Causes GW to be hazardous to SW (#12)											
Risk from contact (utility work) with GW (#13)										NA	
Indoor air inhalation hazards (#14, #22)									NA	NA	
Ambient air inhalation hazards (#15, #16, #17, #18, #23, #24, #25, #26)									NA	NA	
Hazards due to direct contact [ingestion, dermal] (#19, #27, #28, #29)									NA	NA	
Contaminant saturation of soil (#20)		{If No - Source Control Considerations - A}									NA

Risks due to: <u>Soil Contamination</u> (continued)	Brief description of how pathway assessed.	Justification that Pathway Not Relevant?
Polluted soil runoff to surface waters (B)		
Waste Classification Concerns (Part 111 or Part 115)		

Risks due to: <u>Contamination of Surface Water Sediments</u>	Brief description of how pathway assessed.	Justification that Pathway Not Relevant?
Aquatic flora/fauna/food chain hazards (C)		

<u>Other Risks:</u>	Brief description of how assessed.	Justification that Issue is Not Relevant?
Acute toxic impacts & physical hazards (D)		
Ecological & aesthetics (E)		
Additivity and synergistic considerations?		
Asbestos containing materials (F)		